

Serial Number 10/765,990

### REMARKS

Claim 1 has been amended to include the limitations of claim 2, indicated as allowable in item 8 on page 6 of the Official Action, and claim 2 has been canceled.

Claim 3, indicated as allowable in item 8 on page 6 of the Official Action, has been re-written in independent form to include the limitations of claim 1.

Claim 5 has been amended to depend from claim 1 rather than canceled claim 2.

Claim 6 has been amended to include the limitations of claim 7, indicated as allowable in item 8 on page 6 of the Official Action, and claim 7 has been canceled.

Claim 8, indicated as allowable in item 8 on page 6 of the Official Action, has been re-written in independent form to include the limitations of claim 6.

Claim 10 has been amended to correct a typographic error, but is otherwise unchanged. Claim 10 is indicated as allowed in item 8 on page 6 of the Official Action.

Claim 11 has been re-written in independent form to include the limitations of claim 10, as required in item 4 on page 2 of the Official Action. Claim 11 is indicated as allowed in item 8 on page 6 of the Official Action.

Claims 4 and 9 are unchanged.

New claim 12 is identical to original claim 4, but depends from claim 3 rather than claim 1.

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As a result of the above changes, all of the claims now include subject matter indicated by the Examiner as allowable.

The rejection under 35 USC §103(a) has been rendered moot by the amendments to the claims. Nevertheless, the Applicant wishes to point out that *none* of the references applied by the Examiner, including the Qian patent discussed on page 5 of the Official Action, even remotely discloses or suggests the claimed non-linear expansion of a time-bandwidth product in terms of an orthogonally overlaid signal basis set constituting eigensignals of a symbol that are “overlaid in both time and frequency domains and occupy the same physical space,” as claimed. Furthermore, not only do the references fail to disclose the claimed orthogonally overlaid signal basis set, but the proposed combination is based on selection of isolated teachings from unrelated contexts for reasons that are not suggested either implicitly or explicitly by any of the references applied in the rejection, whether considered individually or in any reasonable combination. The Applicant therefore reserves the right to submit a continuation application directed to the subject matter of the rejected claims.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,  
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